

REMARKS

Claims 1 – 36 are pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 2, 8 – 14, 17, 20, 24 – 28, 34, 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969). This rejection is respectfully traversed.

Claims 1 and 13 have been amended herein to include initiating fuel injection and concurrently initiating injection of an acetylene-based component into the engine. Dahung fails to teach or suggest concurrently initiating injection of a fuel and an acetylene-based component. In fact, Dahung teaches away from concurrently injecting a fuel and an acetylene-based component. Dahung specifically teaches that the main fuel is introduced into the combustion chamber prior to the pilot fuel under high load conditions. Under low load conditions, the pilot fuel is introduced into the combustion chamber prior to introducing the main fuel into the combustion chamber (see Abstract and Col. 2, Line 47 through Col. 3, Line 15). Bundrick fails to cure the deficient teachings of Dahung.

In view of the foregoing, claims 1 and 13 define over the prior art. Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 2 and 8 – 12 ultimately depend from claim 1, which defines over the prior art as discussed in detail above. Therefore, claims 2 and 8 – 12 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 14, 17, 20 and 25 – 26 ultimately depend from claim 13, which defines over the prior art as discussed in detail above. Therefore, claims 14, 17, 20 and 25 – 26 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claim 27 has been amended herein to include a fuel supply that initiates injection of a hydrocarbon fuel in a first amount and an acetylene supply that concurrently initiates injection of an acetylene-based component in a second amount. As discussed in detail above, Dahung fails to teach or suggest and, in fact, teaches away from concurrently initiating injection of a fuel and an acetylene-based component. Bundrick fails to cure the deficient teachings of Dahung. Therefore, claim 27 defines over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 28, 34 and 35 ultimately depend from claim 27, which defines over the prior art as discussed in detail above. Therefore, claims 28, 34 and 35 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 3, 15 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969) and further in view of Britton (U.S. Pat. No. 6,314,925). This rejection is respectfully traversed.

Claims 3, 15 and 19 ultimately depend from one of claims 1 and 13, which define over the prior art as discussed in detail above. Therefore, claims 3, 15 and 19 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 4, 16 and 30 – 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969) Serial No. 10/602,938

and further in view of Dickey (U.S. Pat. No. 5,832,880). This rejection is respectfully traversed.

Claims 4, 16 and 30 – 32 ultimately depend from one of claims 1, 13 and 27, which define over the prior art as discussed in detail above. Therefore, claims 4, 16 and 30 – 32 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 5, 6, 21, 22 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969) and further in view of Bromberg et al. (U.S. Pat. No. 5,409,784). This rejection is respectfully traversed.

Claims 5, 6, 21, 22 and 33 ultimately depend from one of claims 1, 13 and 27, which define over the prior art as discussed in detail above. Therefore, claims 5, 6, 21, 22 and 33 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 7 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969) and further in view of Ethington et al. (U.S. Pat. No. 4,690,743). This rejection is respectfully traversed.

Claims 7 and 23 ultimately depend from one of claims 1 and 13, which define over the prior art as discussed in detail above. Therefore, claims 7 and 23 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

Claims 7 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dahung (EP 0643209) in view of Bundrick (U.S. Pat. No. 4,419,969) and further in view of Lowther et al. (U.S. Pat. No. 4,965,052). This rejection is respectfully traversed.

Claims 7 and 23 ultimately depend from one of claims 1 and 13, which define over the prior art as discussed in detail above. Therefore, claims 7 and 23 also define over the prior art and reconsideration and withdrawal of the rejections are respectfully requested.

OTHER AMENDMENTS

Claim 9 has been amended herein to conform with the amended language of claim 1. No new matter has been entered.

ALLOWABLE SUBJECT MATTER


The Examiner states that Claims 18, 19, 36 would be allowable if rewritten in independent form. Applicants thank the Examiner for recognizing the allowability of the subject-matter of claims 18, 19 and 36. However, Applicants have refrained from rewriting claims 18, 19 and 36 in independent form, in view of the present amendment.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (313) 665-4969.

Respectfully submitted,

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